



Flush pressure sensor with display

PI-025-REA01-MFRKG/US/ IP

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Alternative articles: PI1693

When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 programming button



EHEDG Certified



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	-1...25 bar	-15...363 psi	-0.1...2.5 MPa
Process connection	threaded connection G 1 external thread		

Application

Special feature	Gold-plated contacts		
Application	flush mountable for the food and beverage industry		
Installation	freely rotatable housing 350°		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...125; (145 max. 1h)		
Min. bursting pressure	350 bar	5070 psi	35 MPa
Pressure rating	100 bar	1450 psi	10 Mpa
Type of pressure	relative pressure		
No dead space	yes		



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Electrical data			
Operating voltage	[V]	20...30 DC	
Current consumption	[mA]	< 60	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	0.2	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analogue signal; (configurable)	
Electrical design		PNP/NPN	
Number of digital outputs		2	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2	
Permanent current rating of switching output DC	[mA]	250	
Switching frequency DC	[Hz]	< 170	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20; (scalable 1:4)	
Max. load	[Ω]	(Ub - 10 V) / 20 mA	
Analogue voltage output	[V]	0...10; (scalable 1:4)	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		-1...25 bar	-15...363 psi -0.1...2.5 MPa
Set point SP		-0.8...25 bar	-12...363 psi -0.08...2.5 MPa
Reset point rP		-0.9...24.9 bar	-13...362 psi -0.09...2.49 MPa
Analogue start point		-1...18.8 bar	-15...272 psi -0.1...1.88 MPa
Analogue end point		5.3...25 bar	76...363 psi 0.53...2.5 MPa
In steps of		0.1 bar	1 psi 0.01 MPa
Accuracy / deviations			
Repeatability	[X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[X21]	< ± 0,6; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)	
Linearity deviation	[X21]	< ± 0,5; (Turn down 1:1)	
Hysteresis deviation	[X21]	< ± 0,1; (Turn down 1:1)	
Long-term stability	[X21]	< ± 0,1; (Turn down 1:1; per year)	
Temperature coefficient zero point	[X22]	< ± 0,1; (0...80 °C)	



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Temperature coefficient span [X22]	< ± 0,2; (0...80 °C)
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Response times

Response time [ms]	< 3
Damping process value dAP [s]	0...4
Damping for the analogue output dAA in steps [s]	0 - 0,1 - 0,5 - 2
Max. response time analogue output [ms]	3

Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; current/voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; zero point; span
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Operating conditions

Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)

Mechanical data

Materials	stainless steel (1.4404 / 316L); PBT; PC; PEI; EPDM/X; FKM
Materials (wetted parts)	stainless steel (1.4404 / 316L); ceramics (99.9 % Al ₂ O ₃); PTFE
Min. pressure cycles	100 million
Process connection	threaded connection G 1 external thread

Displays / operating elements

Display	switching status	2 x LED, red
	function display	7-segment LED display
	measured values	7-segment LED display
Display unit	bar; psi; MPa	

Remarks

Remarks	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated

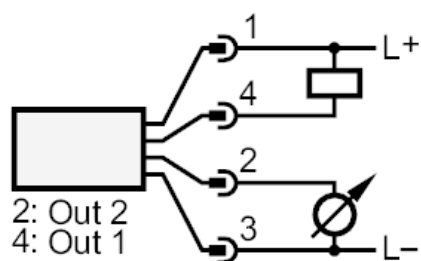
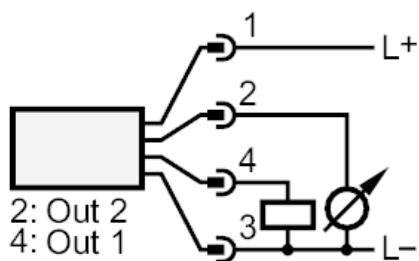




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Connection



OUT1
OUT2

switching output
switching output
analogue output